



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2022-0468; Project Identifier MCAI-2021-01243-T; Amendment 39-22115; AD 2022-14-10]

RIN 2120-AA64

Airworthiness Directives; Airbus SAS Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: The FAA is superseding Airworthiness Directive (AD) 2018-13-08, which applied to certain Airbus SAS Model A318 series airplanes; Model A319-111, -112, -113, -114, -115, -131, -132, and -133 airplanes; Model A320-211, -212, -214, -216, -231, -232, and -233 airplanes; and Model A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes. AD 2018-13-08 required repetitive inspections for cracking of the radius of the front spar vertical stringers and the horizontal floor beam on frame (FR) 36, repetitive inspections for cracking of the fastener holes of the front spar vertical stringers on FR 36, and repair if necessary, and, for certain airplanes, a potential terminating action modification of the center wing box area. This AD was prompted by a determination that additional airplanes are subject to the unsafe condition. This AD revises the applicability by adding airplanes and retains the requirements of AD 2018-13-08; as specified in a European Union Aviation Safety Agency (EASA) AD, which is incorporated by reference. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For material incorporated by reference (IBR) in this AD, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; Internet www.easa.europa.eu. You may find this IBR material on the EASA website at <https://ad.easa.europa.eu>. You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available in the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0468.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0468; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the mandatory continuing airworthiness information (MCAI), any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Vladimir Ulyanov, Aerospace Engineer, Large Aircraft Section, International Validation Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; phone 206-231-3229; email vladimir.ulyanov@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

EASA, which is the Technical Agent for the Member States of the European

Union, has issued EASA AD 2021-0241, dated November 8, 2021 (EASA AD 2021-0241) (also referred to as the MCAI), to correct an unsafe condition for certain Airbus SAS Model A318 series airplanes; Model A319-111, -112, -113, -114, -115, -131, -132, and -133 airplanes; Model A320-211, -212, -214, -215, -216, -231, -232, and -233 airplanes; and Model A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes. Model A320-215 airplanes are not certificated by the FAA and are not included on the U.S. type certificate data sheet; this AD therefore does not include those airplanes in the applicability.

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2018-13-08, Amendment 39-19320 (83 FR 33809, July 18, 2018) (AD 2018-13-08). AD 2018-13-08 applied to certain Airbus SAS Model A318 series airplanes; Model A319-111, -112, -113, -114, -115, -131, -132, and -133 airplanes; Model A320-211, -212, -214, -216, -231, -232, and -233 airplanes; and Model A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes. The NPRM published in the *Federal Register* on April 22, 2022 (87 FR 24081). The NPRM was prompted by a report that, during a center fuselage certification full-scale fatigue test, cracks were found on the front spar vertical stringer at a certain frame. The NPRM was also prompted by a determination that Model A321 airplanes that have incorporated modification 160021 are also subject to the unsafe condition. The NPRM proposed to revise the applicability by adding airplanes and retain the requirements of AD 2018-13-08, as specified in EASA AD 2021-0241.

The FAA is issuing this AD to address fatigue cracking of the front spar vertical stringers on the wings, which, if not corrected, could result in the reduced structural integrity of the airplane. See the MCAI for additional background information.

Discussion of Final Airworthiness Directive

Comments

The FAA received a comment from United Airlines who supported the NPRM without change.

Conclusion

The FAA reviewed the relevant data, considered the comment received, and determined that air safety requires adopting this AD as proposed. Except for minor editorial changes, this AD is adopted as proposed in the NPRM. None of the changes will increase the economic burden on any operator. Accordingly, the FAA is issuing this AD to address the unsafe condition on these products.

Related Service Information Under 1 CFR Part 51

EASA AD 2021-0241 describes procedures for repetitive special detailed inspections for cracking of the radius of the front spar vertical stringers, horizontal floor beam radius and fastener holes of the front spar vertical stringers on frame 36. EASA AD 2021-0241 further describes procedures for repetitive high frequency eddy current (HFEC) inspections for cracking of the horizontal floor beam, repetitive HFEC inspections for cracking of the fastener holes of the front spar vertical stringers on FR 36, repetitive rototest inspections of the fastener holes of the spar vertical stringers, and repair. EASA AD 2021-0241 also describes procedures for the modification of the center wing box area. The modification is required for airplanes in configuration 1, 2 or 3; and for airplanes in configuration 5, 6, or 7, the modification is optional and is a terminating action for the repetitive inspections when done within a specified time frame. The modification includes related investigative and corrective actions. Related investigative actions include an HFEC inspection on the radius of the rib flanges, a rototest inspection of the fastener holes, detailed and HFEC inspections for cracking on the cut edges, detailed and rototest inspections on all open fastener holes, and an inspection to

determine if secondary structure brackets are installed. Corrective actions include reworking the secondary structure bracket and repair. This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Costs of Compliance

The FAA estimates that this AD affects 1,549 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

Estimated costs for required actions

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Retained actions from AD 2018-03-08	Up to 273 work-hours X \$85 per hour = \$23,205	\$87,500	Up to \$110,705	Up to \$1,107,050 for certain airplanes*
New inspections	25 work-hours X \$85 per hour = \$2,125	\$100	\$2,225	\$3,446,525
New modification (5 airplanes)	Up to 403 work-hours X \$85 per hour = \$34,255	Up to \$316,900	Up to \$351,1555	Up to \$1,755,775

* This estimate is based on the determination in AD 2018-13-08 that only 10 airplanes of U.S. registry needed to accomplish all required actions, including the modification; other airplanes were only required to accomplish the terminating actions.

Estimated costs for optional actions

Labor cost	Parts cost	Cost per product
Up to 409 work-hours X \$85 per hour = \$34,765	Up to \$66,050	Up to \$100,815

The FAA has received no definitive data on which to base the cost estimates for the on-condition actions specified in this AD.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator.

Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by:

a. Removing Airworthiness Directive (AD) 2018-13-08, Amendment 39-19320; (83 FR 33809, July 18, 2018); and

b. Adding the following new AD:

2022-14-10 Airbus SAS: Amendment 39-22115; Docket No. FAA-2022-0468; Project Identifier MCAI-2021-01243-T.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD replaces AD 2018-13-08, Amendment 39-19320 (83 FR 33809, July 18, 2018) (AD 2018-13-08).

(c) Applicability

This AD applies to the Airbus SAS airplanes identified in paragraphs (c)(1) through (4) of this AD, certificated in any category, as identified in European Union Aviation Safety Agency (EASA) AD 2021-0241, dated November 8, 2021 (EASA AD 2021-0241).

(1) Model A318-111, -112, -121, and -122 airplanes.

(2) Model A319-111, -112, -113, -114, -115, -131, -132, and -133 airplanes.

(3) Model A320-211, -212, -214, -216, -231, -232, and -233 airplanes.

(4) Model A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes.

(d) Subject

Air Transport Association (ATA) of America Code 57, Wings.

(e) Reason

This AD was prompted by a report that, during a center fuselage certification full-scale fatigue test, cracks were found on the front spar vertical stringer at a certain frame. This AD was also prompted by a determination that Model A321 airplanes that have incorporated modification 160021 are also subject to the unsafe condition. The FAA is issuing this AD to address fatigue cracking of the front spar vertical stringers on the wings, which, if not corrected, could result in the reduced structural integrity of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Requirements

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, EASA AD 2021-0241.

(h) Exceptions to EASA AD 2021-0241

(1) Where EASA AD 2021-0241 refers to its effective date, this AD requires using the effective date of this AD.

(2) The “Remarks” section of EASA AD 2021-0241 does not apply to this AD.

(3) Where paragraph (3) of EASA AD 2021-0241 specifies actions for airplanes repaired “in accordance with instructions approved by EASA or approved under Airbus DOA,” for this AD use “using a method approved by the Manager, Large Aircraft Section, International Validation Branch, FAA; or EASA; or Airbus SAS’s EASA DOA. If approved by the DOA, the approval must include the DOA-authorized signature.”

(4) Where paragraph (4) of EASA AD 2021-0241 specifies to “contact Airbus for approved corrective action instructions and accomplish those instructions accordingly” if cracks are detected, for this AD if any cracking is detected, the cracking must be repaired before further flight using a method approved by the Manager, Large Aircraft Section,

International Validation Branch, FAA; or EASA; or Airbus SAS's EASA DOA. If approved by the DOA, the approval must include the DOA-authorized signature.

(5) Where paragraph (8) of EASA AD 2021-0241 specifies actions for airplanes inspected by additional instructions "approved before the effective date of this AD by Airbus DOA," for this AD use "approved before the effective date of this AD by the Manager, Large Aircraft Section, International Validation Branch, FAA; or EASA; or Airbus SAS's EASA DOA. If approved by the DOA, the approval must include the DOA-authorized signature."

(i) No Reporting Requirement

Although the service information referenced in EASA AD 2021-0241 specifies to submit certain information to the manufacturer, this AD does not include that requirement.

(j) Additional AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, Large Aircraft Section, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the Large Aircraft Section, International Validation Branch, send it to the attention of the person identified in paragraph (k) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov.

(i) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(ii) AMOCs approved previously for AD 2018-13-08 are approved as AMOCs for the corresponding provisions of EASA AD 2021-0241 that are required by paragraph (g) of this AD.

(2) *Contacting the Manufacturer*: For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, Large Aircraft Section, International Validation Branch, FAA; or EASA; or Airbus SAS's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(3) *Required for Compliance (RC)*: Except as required by paragraph (j)(2) of this AD, if any service information contains procedures or tests that are identified as RC, those procedures and tests must be done to comply with this AD; any procedures or tests that are not identified as RC are recommended. Those procedures and tests that are not identified as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the procedures and tests identified as RC can be done and the airplane can be put back in an airworthy condition. Any substitutions or changes to procedures or tests identified as RC require approval of an AMOC.

(k) Related Information

For more information about this AD, contact Vladimir Ulyanov, Aerospace Engineer, Large Aircraft Section, International Validation Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; phone 206-231-3229; email vladimir.ulyanov@faa.gov.

(l) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) European Union Aviation Safety Agency (EASA) AD 2021-0241, dated November 8, 2021.

(ii) [Reserved]

(3) For EASA AD 2021-0241, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; Internet www.easa.europa.eu. You may find this EASA AD on the EASA website at <https://ad.easa.europa.eu>.

(4) You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(5) You may view this material that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email fr.inspection@nara.gov, or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on June 29, 2022.

Christina Underwood, Acting Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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